

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-18 are currently pending. Claims 1, 3, 5-7, 9-13, and 15-18 have been amended by the present amendment. The changes to the claims are supported by the originally filed specification and do not add new matter.

In the outstanding Office Action, Claims 1 and 2 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,167,474 to Sugai et al. (hereinafter “the ‘474 patent”) in view of U.S. Patent No. 6,496,510 to Tsukakoshi et al. (hereinafter “the ‘510 patent”); Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘474 patent in view of the ‘510 patent and U.S. Patent No. 6,069,895 to Ayandeh (hereinafter “the ‘895 patent”); Claims 5 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,760,314 to Iwata (hereinafter “the ‘314 patent”) in view of the ‘510 patent; Claims 6 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘510 patent in view of the ‘314 patent; and Claims 3 and 7-16 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants gratefully acknowledge the indication that Claims 3 and 7-16 include allowable subject matter.

Amended Claim 1 is directed to a routing control system, comprising:

a plurality of routing devices for transferring packets on a network, and a control server for controlling a transfer route of said packets,

wherein each of said plurality of routing devices includes

routing related information reception means for receiving routing related information from an adjacent routing device;

generation means for generating a temporary routing control table based on the received routing related information; and

transmission means for transmitting the temporary routing control table generated by said generation means to said control server, and

said control server includes

reception means for receiving a plurality of the temporary routing control tables transmitted by the transmission means of said plurality of routing devices;
and

control means for controlling the transfer route of said packets via at least one of said plurality of routing devices by using the plurality of the temporary routing control tables received by said reception means.

Regarding the rejection of Claim 1 under 35 U.S.C. § 103(a), the '474 patent is directed to a network relaying apparatus including a router of a computer network which is capable of searching at high speed for a destination of a packet input and a network relaying search method. In particular, the outstanding Office Action asserts that the '474 patent discusses a network 50 including a router 1 that includes a routing manager 60 (*i.e.*, a control server) that exchanges routing information with other routers (*i.e.*, a plurality of routing devices).¹ However, as acknowledged by the outstanding Office Action, the '474 patent fails to disclose that said control server includes reception means for receiving a plurality of the temporary routing control tables transmitted by the transmission means of said plurality of routing devices.²

Further, it is respectfully submitted that the '474 patent fails to disclose that said control server includes control means for controlling the transfer route of said packets via at least one of said plurality of routing devices by using the plurality of the temporary routing control tables received by said reception means. Rather, the outstanding Office Action cites

¹ See Office Action dated March 13, 2008, page 3.

² Id. at page 5.

the ‘474 **routing processors 10 for the control means** recited in Claim 1.³ However, as discussed above, the outstanding Office Action cites **the routing manager 60**, not the routing processors 10, **as teaching a control server**. The ‘474 patent does not disclose that **said control server** includes control means for *controlling the transfer route of said packets via at least one of said plurality of routing devices* by using the plurality of the temporary routing control tables received by said reception means.

Moreover, it is respectfully submitted that the ‘510 patent fails to remedy the deficiencies of the ‘474 patent, as discussed above. The ‘510 patent is directed to a router device, composed of a plurality of interconnected router node devices and externally behaving as a single router, to send and receive routing information to or from other routers.

However, it is respectfully submitted that the ‘510 patent fails to disclose that said control server includes reception means for receiving a plurality of the temporary routing control tables transmitted by the transmission means of said plurality of routing devices. Rather, the ‘510 patent discusses that each router 25 transfers routing protocol packets to or from a cluster-type router 11 to get network connection information.⁴ The ‘510 patent discusses that based on **the network connection information** from the cluster-type router 11, the router 25 generates its own routing table and **forwards packets based on its own routing table**.⁵ Further, the ‘510 patent discusses that a router node 12 sends and receives routing protocol packets, containing network connection information, to or from the routers 25, connected not via any of other router nodes 12, in order to get connection information on the routers 25.⁶ The ‘510 patent does not disclose that the network connection information includes **temporary routing control tables**. Thus, the ‘510 patent does not disclose **a control**

³ See Office Action dated March 13, 2008, page 6.

⁴ See ‘510 patent, column 3, lines 43-47.

⁵ Id. at column 3, lines 48-50.

⁶ Id. at column 5, lines 35-39,

server that includes reception means for *receiving a plurality of temporary routing control tables* transmitted by the transmission means of said plurality of routing devices.

Further, it is respectfully submitted that the '510 patent fails to disclose that said control server includes control means for controlling the transfer route of said packets via at least one of said plurality of routing devices by using the plurality of the temporary routing control tables received by said reception means. Rather, as discussed above, the '510 patent discusses that **each router 25** generates its own routing table and **forwards packets based on its own routing table**. The '510 patent does not disclose *a control server* that includes control means for *controlling the transfer route of said packets via at least one of said plurality of routing devices* by using the plurality of the temporary routing control tables received by said reception means.

Thus, no matter how the teachings of the '474 patent and the '510 patent are combined, the combination does not teach or suggest that said control server includes reception means for receiving a plurality of the temporary routing control tables transmitted by the transmission means of said plurality of routing devices; and control means for controlling the transfer route of said packets via at least one of said plurality of routing devices by using the plurality of the temporary routing control tables received by said reception means.

Accordingly, Applicants respectfully traverse the rejection of Claim 1 (and all associated dependent claims) as being unpatentable over the '474 and '510 patents.

Amended Claim 5 is directed to a routing control server which is connected to a plurality of routing devices for transferring packets on a network and controlling the transfer route of said packets, comprising:

reception means for receiving, in the routing control server, a plurality of temporary routing control tables transmitted from said plurality of routing devices, each of the plurality of temporary routing control tables being generated,

by a corresponding routing device of the plurality of routing devices, based on routing related information received from an adjacent routing device; and

control means for controlling the transfer route of said packets via at least one of said plurality of routing devices by using the plurality of temporary routing control tables received by said reception means.

Regarding the rejection of Claim 5 under 35 U.S.C. § 103(a), the ‘314 patent is directed to a network load distribution system, which realizes load distribution of the entire network through monitoring of a state of the network. In particular, the ‘314 patent discusses that a load distribution server 30 has a function of receiving information regarding a state of the network from respective nodes, responsively calculating an optimum link metric, and notifying each node of the result to conduct load distribution.⁷

However, it is respectfully submitted that the ‘314 patent fails to disclose reception means for receiving, in the routing control server, a plurality of temporary routing control tables transmitted from said plurality of routing devices. Rather, the ‘314 patent discusses that **the network state information** received from the nodes, by the load distribution server 30, **are network topology information, link metric information, link load information, and traffic flow information**. The ‘314 patent does not disclose that the received network state information includes **a plurality of temporary routing control tables**. Thus, the ‘314 patent does not disclose reception means **for receiving, in the routing control server, a plurality of temporary routing control tables** transmitted from said plurality of routing devices, each of the plurality of temporary routing control tables being generated, by a corresponding routing device of the plurality of routing devices, based on routing related information received from an adjacent routing device.

Further, it is respectfully submitted that the ‘314 patent fails to disclose control means for controlling the transfer route of said packets via at least one of said plurality of routing

⁷ See ‘314 patent, column 6, lines 11-15.

devices by using the plurality of temporary routing control tables received by said reception means. Rather, the '314 patent simply discusses that the load distribution server 30 transmits a calculated optimum link metric of each of a plurality of links to the nodes. The **'314 nodes** recalculate and update their routing tables using the optimum link metric, and **conduct path selection using their own routing tables** based on the new link metric information.⁸ Thus, the '314 patent does not disclose control means for **controlling the transfer route of said packets via at least one of said plurality of routing devices** by using the plurality of temporary routing control tables received by said reception means.

Moreover, it is respectfully submitted that the '510 patent fails to remedy the deficiencies of the '314 patent, as discussed above. It is noted that, as stated above, the '510 patent fails to disclose a control server that includes the reception means and the control means recited in Claim 1. Thus, the '510 patent fails to disclose the **reception means** and the **control means** recited in Claim 5.

Thus, no matter how the teachings of the '314 and '510 patents are combined, the combination does not teach or suggest reception means for receiving, in the routing control server, a plurality of temporary routing control tables transmitted from said plurality of routing devices, each of the plurality of temporary routing control tables being generated, by a corresponding routing device of the plurality of routing devices, based on routing related information received from an adjacent routing device; and control means for controlling the transfer route of said packets via at least one of said plurality of routing devices by using the plurality of temporary routing control tables received by said reception means.

Accordingly, Applicants respectfully traverse the rejection of Claim 5 (and all associated dependent claims) as being unpatentable over the '314 patent in view of the '510 patent.

⁸ See '314 patent, column 8, lines 3-36.

Amended Claim 6 is directed to a routing control method, comprising:

receiving, in each of a plurality of routing devices, routing related information from an adjacent routing device;

generating a temporary routing control table, within each of the plurality of routing devices, based on the received routing related information;

transmitting, by each of the plurality of routing devices, the generated temporary routing control table to a control server;

receiving a plurality of the transmitted temporary routing control tables in the control server; and

controlling, using the control server, the transfer route of said packets via at least one of said plurality of routing devices by using the received plurality of temporary routing control tables.

Regarding the rejection of Claim 6 under 35 U.S.C. § 103(a), as stated above, the ‘314 and ‘510 patents, alone or in proper combination, fail to teach the reception means and the control means recited in Claim 5. Thus, no matter how the teachings of the ‘314 and ‘510 patents are combined, the combination does not teach or suggest the receiving a plurality of the transmitted temporary control tables and the controlling, as recited in Claim 6. Accordingly, Applicants respectfully traverse the rejection of Claim 6 (and all associated dependent claims) as being unpatentable over the ‘510 patent in view of the ‘314 patent.

Amended Claim 17, recites in part,

a reception unit configured to receive a plurality of the temporary routing control tables transmitted by the transmission unit of said plurality of routing devices; and

a control unit configured to control the transfer route of said packets via at least one of said plurality of routing devices by using the plurality of the temporary routing control tables received by said reception unit.

Amended Claim 18, recites in part,

a reception unit configured to receive, in the routing control server, a plurality of temporary routing control tables transmitted from said plurality of routing devices, each of the

plurality of temporary routing control tables being generated, by a routing device of the plurality of routing devices, based on routing related information received from an adjacent routing device; and

a control unit configured to control the transfer route of said packets via at least one of said plurality of routing devices by using the plurality of temporary routing control tables received by said reception unit.

As stated above, the '314 and '510 patents, alone or in proper combination, fail to disclose the reception means and the control means recited in Claim 5. Thus, no matter how the teachings of the '314 and '510 patents are combined, the combination does not teach or suggest the reception unit and the control unit recited in Claims 17 and 18, respectively. Accordingly, Applicants respectfully traverse the rejection of Claim 17 as being unpatentable over the '510 patent in view of the '314 patent. Further, Applicants respectfully traverse the rejection of Claim 18 as being unpatentable over the '314 patent in view of the '510 patent.

Regarding the rejection of dependent Claim 4, it is respectfully submitted that the '895 patent fails to remedy the deficiencies of the '474 and '510 patents, as discussed above. Accordingly, it is respectfully submitted that dependent Claim 4 patentably defines over any proper combination of the '474, '510, and '895 patents.

Further, Claims 3, 7, 9-13, 15, and 16 have been rewritten in independent form, and to include all the limitations of their respective base claims. Accordingly, based on the indicated allowability of those claims, it is respectfully submitted that Claims 3, 7, 9-13, 15, and 16 are in condition for formal allowance.

Thus, it is respectfully submitted independent Claims 1, 3, 5-7, 9-13, and 15-18 (and all associated dependent claims) patentably define over any proper combination of the '474, '510, '314, and '895 patents.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

Johnny Ma
Registration No. 59,976